Work Order ID 101530

May-13-13 1:04:07 PM

101530

Item ID: D2562-001

Revision ID:

Item Name: Strut

Start Date: 5/13/13 **Start Qty:** 5.00 *5*

Required Date: 5/31/13 **Req'd Qty:** 5.00 *5*

Reference:

Accept *N900040100*

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Run Start *NR1*

Stop *NR2*

Approvals: **Process Plan:** MLJ **Date:** 13-05-16 **Tooling:** ______ **Date:** ______

QC: ______ **Date:** ______ **SPC (Y/N):** ______ **Date:** ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

Draw Nbr	Revision Nbr
D2562	Rev D

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100 *100* Brake NC Brake NC	NC BRAKE Memo Punch to length as per Dwg D2562	0.00 0.00				5			FF 13-10-25
110 *110* Small Fab Small Fab	Small Fab Memo 1- Bend end as per Dwg D2562 Angle "D"2-Deburr	0.00 0.00				5			FF 13-10-25
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00 DAS 27 9-89 13-10-25				5			

DQA: Date:

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ______ Part No. ______ NCR No. ______	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 101530 *101530*

May-13-13 1:04:07 PM

Item ID:	D2562-001	**Accept**	*N900040100*
Revision ID:		**Setup**	Start *NS1* / Stop *NS2*
Item Name:	Strut		
Start Date:	5/13/13	**Start Qty:** 5.00 *5*	**Cust Item ID:**
Required Date:	5/31/13	**Req'd Qty:** 5.00 *5*	**Customer:**
Reference:			

Run Start *NR1* Stop *NR2*

Approvals: Process Plan: ______ Date: ______ Tooling: ______ Date: ______
QC: ______ Date: ______ SPC (Y/N): ______ Date: ______

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.2) per QSI005 4.3-Steel M126125.	0.00				5	ø	13-10-29	DAS 34 9-89
	Memo START TIME: 7:40 FINISH TIME: 8:00 OVEN TEMPERATURE: 8.10.	0.00							
140 *140* QC Quality Control	QC3- Inspect Part Finish	0.00	DAS 27 9-89 13 10 29			5			
	Memo	0.00							
150 *150* Packaging Packaging	Identify as per dwg & Stock Location: ST252	0.00				5x	DAS 28 9-89	13-10-29	
	Memo	0.00							

DQA: ________ Date: ____________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ________	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**			
Part No. ________	Rework ☐	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. ________	Scrap ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
	Use-as-is ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Work Order Update ☐	Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data	☐									
Equip/Tooling	☐									
Operator	☐									
Material	☐									
Setup	☐									
Other	☐									
Process	☐									
Supplier	☐									
Training	☐									
Unapproved	☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other ________
☐ Ripples in Bend	☐ Drill Holes	☐ Offset	________	
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	________	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	________	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Work Order ID 101530 *101530*

May-13-13 1:04:07 PM

Item ID:	D2562-001		**Accept**	*N900040100*	**Setup** **Start** *NS1*
Revision ID:					**Stop** *NS2*
Item Name:	Strut				
Start Date:	5/13/13	**Start Qty:** 5.00	*5*	**Cust Item ID:**	
Required Date:	5/31/13	**Req'd Qty:** 5.00	*5*	**Customer:**	
Reference:					

Run **Start** *NR1* **Stop** *NR2*

Approvals: **Process Plan:** ____________ **Date:** ________ **Tooling:** ________ **Date:** ________

QC: ________________ **Date:** ________ **SPC (Y/N):** ________ **Date:** ________

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160*	QC21- Final Inspection - Work Order Release	0.00				0	RM 13/10/29		
QC Quality Control	**Memo**	0.00							

MC 13-10-29

DQA: ________ Date: ________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: Date:

Work Order: ____________________

Part No. ____________________

NCR No. ____________________

DISPOSITION

- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		

Picklist Print

May-13-13 1:04:07 PM

Work Order ID: 101530

Parent Item: D2562-001

Parent Item Name: Strut

Start Date: 5/13/13 **Required Date:** 5/31/13

Start Qty: 5.00 **Required Qty:** 5.00

Comments: IPP F02.04.15Added dwg Rev.B1 NG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304TR0.500W.035 304 RD Tube .500 x .035W		Purchased	No			100	f	649.5195	1.7067	**8.9826315**	FF	13-10-25	

Location	Loc Qty	Loc Code	
MAT017 126922	649.51953	5.389	
118702	0.00003		
123303	151.4645		
125513	498.055	3.593	[illegible]

DQA: ________ Date: ________

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

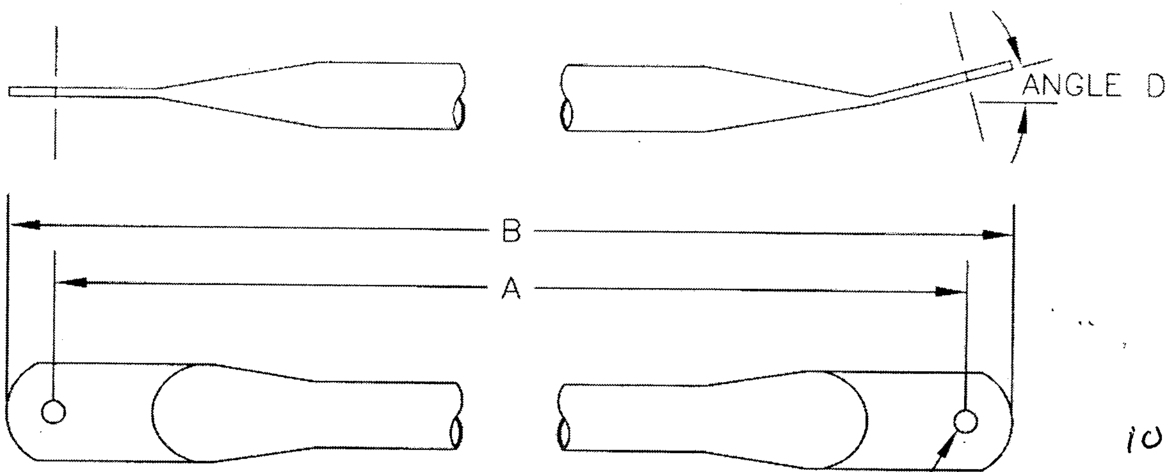
QA Closed: Date:

Work Order: ________ Part No. ________ NCR No. ________	**DISPOSITION** Rework ☐ Scrap ☐ Use-as-is ☐ Work Order Update ☐	**AGAINST DEPARTMENT/PROCESS** Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐ ☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration		
☐ Turning Sequence	☐ Finish	☐ Out of Sequence		
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions		



"C" DIA TO BE OPENED MANUALLY

PUNCH ENDS PER SPEC CONTROL DRAWING D2727

PART #	DIM A	DIM B	DIA C	ANG D
D2562-001	19.68	20.48	–	10
D2562-003	20.37	21.17	–	18
D2562-005	29.00	29.80	–	30
D2562-007	19.22	20.02	–	0
D2562-011	25.79	26.59	–	16
D2562-013	26.63	27.43	–	24

GENERAL NOTES

1) MATERIAL: AISI 304/316/318 SS 0.500 OD X 0.035 WALL (REF DART SPEC. M304TR0.500W.035)
   ENSURE SEAMLESS TUBE IS USED
2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES PER DART QSI 018 UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES

RELEASED 05-05-27

101530 MCJ 13-05-16

DART

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DESIGN	DRAWN BY	DRAWING NO.
CP	RF	D2562
CHECKED	APPROVED	TITLE: STRUT
DATE: 05.05.18		REV. D · SHEET 1 OF 1 · SCALE 1:2

REV	DATE	DESCRIPTION
A	96.05.01	NEW ISSUE
B	98.10.15	UPDATED MATERIAL NOTE (TSR A603)
C	02.06.05	ADD -005; ADD FINISH
D	05.05.18	ADD -007/-011/-013; UPDATE -005

DART AEROSPACE LTD

DART AEROSPACE

Description:	STrut	Work Order:	101530
Inspection Drawing:	~~Strud~~ D2526 Rev: D	Part Number:	D 2562-001

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
±.30 19.68		19.68	✓		Tape 07	FF
±.30 20.48		20.48	✓		Tape 07	FF
10°		10°	✓		Angle Level 04	

Measured by:	Checked By:	QC inspector:	Engineering Approval (*if necessary*):
FF	DAS 30 9-89	DAS 27 9-89	
Date 13-10-25	Date 13/10/25	Date 13 10 25	Date